```
RRRRRRRRRRRR        UUU           UUU NNN          NNN   000000000    FFFFFFFFFFFFFFF   FFFFFFFFFFFFFFF
RRRRRRRRRRRR        UUU           UUU NNN          NNN   000000000    FFFFFFFFFFFFFFF   FFFFFFFFFFFFFFF
RRRRRRRRRRRR        UUU           UUU NNN          NNN   000000000    FFFFFFFFFFFFFFF   FFFFFFFFFFFFFFF
RRR        RRR      UUU           UUU NNN          NNN  000      000  FFF               FFF
RRR        RRR      UUU           UUU NNN          NNN  000      000  FFF               FFF
RRR        RRR      UUU           UUU NNN          NNN  000      000  FFF               FFF
RRR        RRR      UUU           UUU NNNNNN       NNN  000      000  FFF               FFF
RRR        RRR      UUU           UUU NNNNNN       NNN  000      000  FFF               FFF
RRR        RRR      UUU           UUU NNNNNN       NNN  000      000  FFF               FFF
RRRRRRRRRRRR        UUU           UUU NNN   NNN    NNN  000      000  FFFFFFFFFFF       FFFFFFFFFFF
RRRRRRRRRRRR        UUU           UUU NNN   NNN    NNN  000      000  FFFFFFFFFFF       FFFFFFFFFFF
RRRRRRRRRRRR        UUU           UUU NNN   NNN    NNN  000      000  FFFFFFFFFFF       FFFFFFFFFFF
RRR   RRR           UUU           UUU NNN      NNNNN    000      000  FFF               FFF
RRR    RRR          UUU           UUU NNN      NNNNNN   000      000  FFF               FFF
RRR     RRR         UUU           UUU NNN      NNNNNN   000      000  FFF               FFF
RRR        RRR      UUU           UUU NNN          NNN  000      000  FFF               FFF
RRR        RRR      UUU           UUU NNN          NNN  000      000  FFF               FFF
RRR        RRR      UUU           UUU NNN          NNN  000      000  FFF               FFF
RRR           RRR   UUUUUUUUUUUUUUUUU NNN          NNN   000000000    FFF               FFF
RRR           RRR   UUUUUUUUUUUUUUUUU NNN          NNN   000000000    FFF               FFF
RRR           RRR   UUUUUUUUUUUUUUUUU NNN          NNN   000000000    FFF               FFF
```

```
PPPPPPPP      AAAAAA       GGGGGGGG  MM      MM  RRRRRRR      GGGGGGGG
PPPPPPPP      AAAAAA       GGGGGGGG  MM      MM  RRRRRRR      GGGGGGGG
PP      PP  AA      AA  GG          MMMM  MMMM  RR      RR  GG
PP      PP  AA      AA  GG          MMMM  MMMM  RR      RR  GG
PP      PP  AA      AA  GG          MM  MM  MM  RR      RR  GG
PP      PP  AA      AA  GG          MM  MM  MM  RR      RR  GG
PPPPPPPP    AA      AA  GG          MM      MM  RRRRRRR      GG
PPPPPPPP    AA      AA  GG          MM      MM  RRRRRRR      GG
PP          AAAAAAAAAA  GG  GGGGGG  MM      MM  RR  RR      GG  GGGGGG
PP          AAAAAAAAAA  GG  GGGGGG  MM      MM  RR  RR      GG  GGGGGG
PP          AA      AA  GG      GG  MM      MM  RR      RR  GG      GG
PP          AA      AA  GG      GG  MM      MM  RR      RR  GG      GG
PP          AA      AA  GGGGGG      MM      MM  RR      RR  GGGGGG
PP          AA      AA  GGGGGG      MM      MM  RR      RR  GGGGGG


LL            IIIIII      SSSSSSSS
LL            IIIIII      SSSSSSSS
LL              II      SS
LL              II      SS
LL              II      SS
LL              II      SS
LL              II        SSSSSS
LL              II        SSSSSS
LL              II            SS
LL              II            SS
LL              II            SS
LL              II            SS
LLLLLLLLLL    IIIIII      SSSSSSSS
LLLLLLLLLL    IIIIII      SSSSSSSS
```

```
   1   0001   0 MODULE PAGMRG (IDENT = 'V04-000'
   2   0002   0               %BLISS32[,ADDRESSING_MODE(EXTERNAL=LONG_RELATIVE,NONEXTERNAL=LONG_RELATIVE)]
   3   0003   0               ) =
   4   0004   1 BEGIN
   5   0005   1
   6   0006   1 !*****************************************************************************
   7   0007   1 !*                                                                           *
   8   0008   1 !*   COPYRIGHT (c) 1978, 1980, 1982, 1984 BY                                  *
   9   0009   1 !*   DIGITAL EQUIPMENT CORPORATION, MAYNARD, MASSACHUSETTS.                   *
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  13   0013   1 !*   ONLY IN  ACCORDANCE WITH  THE  TERMS  OF  SUCH  LICENSE  AND WITH THE    *
  14   0014   1 !*   INCLUSION OF THE ABOVE COPYRIGHT NOTICE. THIS SOFTWARE OR  ANY  OTHER    *
  15   0015   1 !*   COPIES THEREOF MAY NOT BE PROVIDED OR OTHERWISE MADE AVAILABLE TO ANY    *
  16   0016   1 !*   OTHER PERSON.  NO TITLE TO AND OWNERSHIP OF  THE  SOFTWARE IS  HEREBY    *
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  18   0018   1 !*                                                                           *
  19   0019   1 !*   THE INFORMATION IN THIS SOFTWARE IS  SUBJECT TO CHANGE WITHOUT NOTICE    *
  20   0020   1 !*   AND  SHOULD  NOT  BE  CONSTRUED AS  A COMMITMENT BY DIGITAL EQUIPMENT    *
  21   0021   1 !*   CORPORATION.                                                             *
  22   0022   1 !*                                                                           *
  23   0023   1 !*   DIGITAL ASSUMES NO RESPONSIBILITY FOR THE USE  OR  RELIABILITY OF ITS    *
  24   0024   1 !*   SOFTWARE ON EQUIPMENT WHICH IS NOT SUPPLIED BY DIGITAL.                  *
  25   0025   1 !*                                                                           *
  26   0026   1 !*                                                                           *
  27   0027   1 !*****************************************************************************
  28   0028   1 !
  29   0029   1
  30   0030   1 !++
  31   0031   1 ! FACILITY:
  32   0032   1 !   DSR (Digital Standard RUNOFF) /DSRPLUS DSRINDEX/INDEX Utility
  33   0033   1 !
  34   0034   1 ! ABSTRACT:       Compares page numbers to see if they can be merged.
  35   0035   1 !
  36   0036   1 ! ENVIRONMENT:    Transportable
  37   0037   1 !
  38   0038   1 ! AUTHOR:         R. W. Friday
  39   0039   1 !
  40   0040   1 ! CREATION DATE: May, 1979
  41   0041   1 !
  42   0042   1 ! MODIFIED BY:
  43   0043   1 !      002      JPK00024        23-May-1983
  44   0044   1 !               Modified lowercasing algorithm in PERMUTE. Now lowercase only
  45   0045   1 !               if word contains only 1 letter or if second letter in word is
  46   0046   1 !               lowercase. Picked up modules PAGMRG and POOL from DSR/DSRPLUS
  47   0047   1 !               since they are no longer used by DSR/DSRPLUS.
  48   0048   1 !
  49   0049   1 !--
  50   0050   1
  51   0051   1 !
  52   0052   1 ! TABLE OF CONTENTS
  53   0053   1 !
  54   0054   1
  55   0055   1 FORWARD ROUTINE
  56   0056   1     PAGMRG;
  57   0057   1
```

```
  58        0058  1 !
  59        0059  1 ! INCLUDE FILES:
  60        0060  1 !
  61        0061  1
  62        0062  1 LIBRARY 'NXPORT:XPORT';
  63        0063  1
  64        0064  1 REQUIRE 'REQ:PAGEN';
  65        0145  1
  66        0146  1 !
  67        0147  1 ! MACROS:
  68        0148  1 !
  69        0149  1 ! EQUATED SYMBOLS:
  70        0150  1 !
  71        0151  1
  72        0152  1 LITERAL
  73        0153  1     TRUE = 1,
  74        0154  1     FALSE = 0;
  75        0155  1
  76        0156  1 !
  77        0157  1 ! OWN STORAGE:
  78        0158  1 !
  79        0159  1 !
  80        0160  1 ! EXTERNAL REFERENCES:
  81        0161  1 !
  82        0162  1
  83        0163  1 EXTERNAL ROUTINE
  84        0164  1     DSPEQL;
```

```
  86    0165  1  %SBTTL 'PAGMRG -- Compare two page entries to see if they can be merged'
  87    0166  1  GLOBAL ROUTINE PAGMRG (ENTRY1, ENTRY2) =
  88    0167  1
  89    0168  1  !++
  90    0169  1  ! FUNCTIONAL DESCRIPTION:
  91    0170  1  !
  92    0171  1  !      Compare two page numbers to see if they are adjacent pages.
  93    0172  1  !
  94    0173  1  ! FORMAL PARAMETERS:
  95    0174  1  !
  96    0175  1  !      ENTRY1 and ENTRY2 are the page numbers to be compared.
  97    0176  1  !
  98    0177  1  ! IMPLICIT INPUTS:
  99    0178  1  !
 100    0179  1  !      NONE
 101    0180  1  !
 102    0181  1  ! IMPLICIT OUTPUTS:
 103    0182  1  !
 104    0183  1  !      NONE
 105    0184  1  !
 106    0185  1  ! ROUTINE VALUE:
 107    0186  1  ! COMPLETION CODES:
 108    0187  1  !
 109    0188  1  !      TRUE    - Specified page numbers are adjacent
 110    0189  1  !      FALSE   - Specified page numbers are not adjacent
 111    0190  1  !
 112    0191  1  ! SIDE EFFECTS:
 113    0192  1  !
 114    0193  1  !      NONE
 115    0194  1  !
 116    0195  1  !--
 117    0196  1
 118    0197  2      BEGIN
 119    0198  2
 120    0199  2      MAP
 121    0200  2          ENTRY1 : REF PAGE_DEFINITION,
 122    0201  2          ENTRY2 : REF PAGE_DEFINITION;
 123    0202  2
 124    0203  2      !
 125    0204  2      ! Both entries must exist
 126    0205  2      !
 127    0206  2      IF (.ENTRY1 EQL 0) OR (.ENTRY2 EQL 0) THEN RETURN FALSE;
 128    0207  2
 129    0208  2      !
 130    0209  2      ! By definition, you can't merge page numbers if
 131    0210  2      ! their display characteristics are different.  Test for this.
 132    0211  2      !
 133    0212  2      IF NOT DSPEQL (.ENTRY1, .ENTRY2) THEN RETURN FALSE;
 134    0213  2
 135    0214  2      !
 136    0215  2      ! Section type must match
 137    0216  2      !
 138    0217  2      IF .ENTRY1 [SCT_TYP] NEQ .ENTRY2 [SCT_TYP] THEN RETURN FALSE;
 139    0218  2
 140    0219  2      !
 141    0220  2      ! Section number must always match
 142    0221  2      !
```

PAGMRG
V04-000

D 3
16-Sep-1984 01:26:01   VAX-11 Bliss-32 V4.0-742
PAGMRG -- Compare two page entries to see if th 14-Sep-1984 13:07:42   [RUNOFF.SRC]PAGMRG.BLI;1   Page 4
(2)

```
:  143        0222  2          IF .ENTRY1 [SCT_NUMBER] NEQ .ENTRY2 [SCT_NUMBER] THEN RETURN FALSE;
:  144        0223  2
:  145        0224  2          !
:  146        0225  2          ! If sub-page exists, the page number must match and the sub-pages
:  147        0226  2          ! must differ only by 1
:  148        0227  2          !
:  149        0228  2          IF .ENTRY1 [SCT_SUB_PAGE] NEQ 0
:  150        0229  2          THEN
:  151        0230  3              BEGIN
:  152        0231  3
:  153        0232  3              IF .ENTRY1 [SCT_PAGE] NEQ .ENTRY2 [SCT_PAGE] THEN RETURN FALSE;
:  154        0233  3
:  155        0234  4              IF  (.ENTRY1 [SCT_SUB_PAGE] NEQ .ENTRY2 [SCT_SUB_PAGE] - 1)
:  156        0235  4              AND (.ENTRY1 [SCT_SUB_PAGE] NEQ .ENTRY2 [SCT_SUB_PAGE])
:  157        0236  3              THEN
:  158        0237  3                  RETURN FALSE;
:  159        0238  3
:  160        0239  3              RETURN TRUE
:  161        0240  3              END;
:  162        0241  2
:  163        0242  2          !
:  164        0243  2          ! If all else is OK, page numbers can differ only by 0 or 1
:  165        0244  2          !
:  166        0245  2          IF .ENTRY1 [SCT_PAGE] NEQ .ENTRY2 [SCT_PAGE] - 1
:  167        0246  2          THEN
:  168        0247  3              BEGIN
:  169        0248  3
:  170        0249  3              IF .ENTRY1 [SCT_PAGE] NEQ .ENTRY2 [SCT_PAGE] THEN RETURN FALSE;
:  171        0250  3              END;
:  172        0251  2
:  173        0252  2          RETURN TRUE;
:  174        0253  1          END;                          !End of PAGMRG
```

```
                                                                .TITLE  PAGMRG
                                                                .IDENT  \V04-000\

                                                                .EXTRN  DSPEQL

                                                                .PSECT  $CODE$,NOWRT,2

                                    000C 00000      .ENTRY  PAGMRG, Save R2,R3              :  0166
                      52      04  AC  D0 00002      MOVL    ENTRY1, R2                      :  0206
                              5C  13 00006          BEQL    4$
                              08  AC  D5 00008      TSTL    ENTRY2
                              57  13 0000B          BEQL    4$
                      53      08  AC  D0 0000D      MOVL    ENTRY2, R3                      :  0212
                              0C  BB 00011          PUSHR   #^M<R2,R3>
       00000000G  EF      02  FB 00013              CALLS   #2, DSPEQL
                              47      50  E9 0001A   BLBC    R0, 4$
       50          63      62  8D 0001D             XORB3   (R2), (R3), R0                 :  0217
                  OF          50  93 00021          BITB    R0, #15
                              3E  12 00024          BNEQ    4$
           04  A3  04      A2  D1 00026             CMPL    4(R2), 4(R3)                    :  0222
                      37      12 0002B              BNEQ    4$
                  02      A2  B5 0002D              TSTW    2(R2)                           :  0228
                      1C      13 00030              BEQL    1$
```

PAGMRG
V04-000

E 3
16-Sep-1984 01:26:01   VAX-11 Bliss-32 V4.0-742
PAGMRG -- Compare two page entries to see if th 14-Sep-1984 13:07:42   [RUNOFF.SRC]PAGMRG.BLI;1

Page 5
(2)

```
                        08   A3      08   A2  D1 00032          CMPL    8(R2), 8(R3)        ; 0232
                                          2B  12 00037          BNEQ    4$
                             50      02   A3  3C 00039          MOVZWL  2(R3), R0           ; 0234
                                          50  D7 0003D          DECL    R0
        50      02   A2      10            00  ED 0003F          CMPZV   #0, #16, 2(R2), R0
                                          19  13 00045          BEQL    3$
                        02   A3      02   A2  B1 00047          CMPW    2(R2), 2(R3)        ; 0235
                                          10  11 0004C          BRB     2$
                             50      08   A3  01  C3 0004E 1$:   SUBL3   #1, 8(R3), R0       ; 0245
                                     50  08   A2  D1 00053       CMPL    8(R2), R0
                                          07  13 00057          BEQL    3$
                        08   A3      08   A2  D1 00059          CMPL    8(R2), 8(R3)        ; 0249
                                          04  12 0005E 2$:      BNEQ    4$
                             50            01  D0 00060 3$:      MOVL    #1, R0              ; 0252
                                          04  00063             RET
                                          50  D4 00064 4$:      CLRL    R0                  ; 0253
                                          04  00066             RET
```

; Routine Size: 103 bytes,   Routine Base: $CODE$ + 0000

```
;  175           0254 1                                    !End of module
;  176           0255 1 END
;  177           0256 0 ELUDOM
```

;   PSECT SUMMARY

```
;      Name                    Bytes                        Attributes
;  $CODE$                        103  NOVEC,NOWRT,  RD ,  EXE,NOSHR,  LCL,  REL,  CON,NOPIC,ALIGN(2)
```

;   Library Statistics

```
;                               -------- Symbols --------     Pages       Processing
;      File                     Total    Loaded   Percent     Mapped      Time
;  _$255$DUA28:[SYSLIB]XPORT.L32;1     590       0         0        252        00:00.1
```

;   COMMAND QUALIFIERS

;   BLISS/CHECK=(FIELD,INITIAL,OPTIMIZE)/LIS=LIS$:PAGMRG/OBJ=OBJ$:PAGMRG MSRC$:PAGMRG/UPDATE=(ENH$:PAGMRG)

; Size: 103 code + 0 data bytes

```
; Run Time:        00:03.6
; Elapsed Time:    00:10.7
; Lines/CPU Min:    4290
; Lexemes/CPU-Min: 17145
; Memory Used:  50 pages
; Compilation Complete
```

PAGE
LIS

PERMUTE
LIS

PAGCMP
LIS

PANPA
LIS

RCS
LIS

POOL
LIS

RINIT
LIS

PERIOD
LIS

PUS
LIS

PUTNDX
LIS

PARSEP
LIS

PUTTOC
LIS

REQUIR
LIS

PAGMRG
LIS

PARAG
LIS

REPEA
LIS